

**Notice of Allowability**

|                 |                 |  |
|-----------------|-----------------|--|
| Application No. | Applicant(s)    |  |
| 10/750,807      | KUBOTA, SHINPEI |  |
| Examiner        | Art Unit        |  |
| Leon Flores     | 2611            |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1.  This communication is responsive to 4/27/2007.
2.  The allowed claim(s) is/are 1-13.
3.  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a)  All
  - b)  Some\*
  - c)  None
  1.  Certified copies of the priority documents have been received.
  2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3.  Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

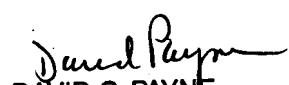
\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4.  A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5.  CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
  - (a)  including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
    - 1)  hereto or 2)  to Paper No./Mail Date \_\_\_\_\_.
  - (b)  including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6.  DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

|  |  |
|--|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892)   | 5. <input type="checkbox"/> Notice of Informal Patent Application                      |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 6. <input type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),<br>Paper No./Mail Date _____.   | 7. <input type="checkbox"/> Examiner's Amendment/Comment                               |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance   |
|  | 9. <input type="checkbox"/> Other _____.   |

  
DAVID C. PAYNE**SUPERVISORY PATENT EXAMINER**

**DETAILED ACTION*****Allowable Subject Matter***

1. Claims 1-13 are allowed.
2. The following is an examiner's statement of reasons for allowance: The art of record does not suggest the respective claim combinations together and nor would the respective claim combinations be obvious with:
  3. Re claim 1, the further limitation of "*a receiving apparatus comprising: at least one variable gain amplifier; at least one level detection circuit, which detects at least one level output from said at least one variable gain amplifier; at least one comparing circuit for comparing at least one reference level to said at least one output from said at least one level detection circuit; at least one demodulator; at least one binarizing circuit; at least one slice level holding circuit holding at least one substantially constant value at least one slice level employed by said at least one binarizing circuit; and at least one counter circuit; wherein at least one gain of said at least one variable gain amplifier is switched based on at least one result of comparison by said at least one comparing circuit; and wherein, when said at least one gain is switched, said at least one counter circuit and said at least one slice level holding circuit cause said at least one slice level to be held at said at least one substantially constant value for at least one prescribed time*". Claims 2-7 depends on claim 1 above.
  4. Re claim 8, the further limitation of "*a receiving apparatus comprising: a variable gain amplifier; a level detection circuit for detecting an output of the variable gain amplifier; a comparing circuit for comparing a reference level to said output from said*

*level detection circuit and outputting a gain setting signal comprising a positive gain setting signal or a negative gain setting signal; a demodulator; a binarizing circuit; a slice level holding circuit holding a slice level employed by said binarizing circuit at a substantially constant value; and a counter circuit receiving a first input when said comparing circuit outputs the positive gain setting signal and a second input when said comparing circuit outputs the negative gain setting signal, the counter circuit being operatively connected to said slice level holding circuit; said counter circuit causing said slice level holding circuit to hold the slice level at the substantially constant value for a given time when said first input changes to said second input or when said second input changes to said first input". Claims 9-10 depends on claim 8 above.*

5. Re claim 11, the further limitation of "a receiving apparatus comprising: a variable gain amplifier; a level detection circuit for detecting an output of the variable gain amplifier; a comparing circuit for comparing a reference level to said output from said level detection circuit and outputting a gain setting signal comprising a positive gain setting signal or a negative gain setting signal; a demodulator; a binarizing circuit; means for holding a slice level employed by said binarizing circuit at a substantially constant value; and a counter circuit receiving a first input when said comparing circuit outputs the positive gain setting signal and a second input when said comparing circuit outputs the negative gain setting signal, the counter circuit being operatively connected to said means for holding a slice level employed by said binarizing circuit at a substantially constant value; said counter circuit causing said means for holding a slice level employed by said binarizing circuit at a substantially constant value to hold the

*slice level at the substantially constant value for a given time when said first input changes to said second input or when said second input changes to said first input".*

Claims 12-13 depends on claim 11 above.

6. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

***Contact***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leon Flores whose telephone number is 571-270-1201. The examiner can normally be reached on Mon-Fri 7-5pm Alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Payne can be reached on 571-272-3024. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

LF  
June 4, 2007

*David Payne*  
DAVID C. PAYNE  
SUPERVISORY PATENT EXAMINER